UK NEQAS
Leucocyte Immunophenotyping

Sheffield Teaching Hospitals NHS
NHS Foundation Trust

Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

All Participant Report

Distribution - 151602 | Closing Date - 21 August 2015 | Participant ID - 42981

Date Issued - 03 August 2015

Trial Comments

This sample was issued to 272 participants in the LI programme.

Sample Comments

The sample was manufactured by UK NEQAS using a sample of blood from a leukaemia patient which was stabilised and added to a stabilised unit of whole blood.

Results and Performance

Overall Performance Grade (Core Antigens Only)	Performance Status for this Sample	Performance Status Classification Over 6 Sample Period	
		Satisfactory (Grades A-C)	Critical (Grades D-G)
G	Critical	4	2

Please note performance monitoring for this programme is semi-qualitative and is based on the overall performance grade obtained from the consensus immunophenotype on the core antigens. The robust statistics and z-scores provided below are related to technical performance on individual antigens and are not used for performance monitoring. Derivation of z-scores requires normally distributed data and the results for this programme vary between normal and abnormal distribution based on the antigens and on a sample to sample basis. Therefore z-scores for antigens with expressions at the extremes of the results scale (around 0% and 100%) may not truly reflect the performance of the antigen and all z-scores should be viewed as for information purposes only.

Antigen	Your Results (%)	Your Result Antigen Expression (Positive/Negative)	Consensus Antigen Expression (Positive/Negative)	Robust Mean (%)	Robust SD (%)
CD2			-	1.33	1.62
CD3			-	1.26	1.51
CD5			+	87.02	9.25
CD13			-	0.00	0.00
CD19			+	96.86	3.41
CD20			+	44.03	38.42
CD10			-	0.00	0.00
CD22			-	12.54	11.36
CD23			+	53.75	32.96
CD79b			-	30.08	29.73
FMC7			-	1.02	1.18
CD25			-	0.00	0.00
CD43			+	95.05	3.97
CD200			+	93.32	6.33
Kappa			+	95.23	5.07
CD11c			+	35.49	33.25
CD45			+	100.00	0.00
HLADR			+	90.92	9.45
CD38			-	8.62	7.58

Sheffield Teaching Hospitals NHS Foundation Trust, a UKAS proficiency testing provider No. 7804, operating UK NEQAS for Leucocyte Immunophenotyping.

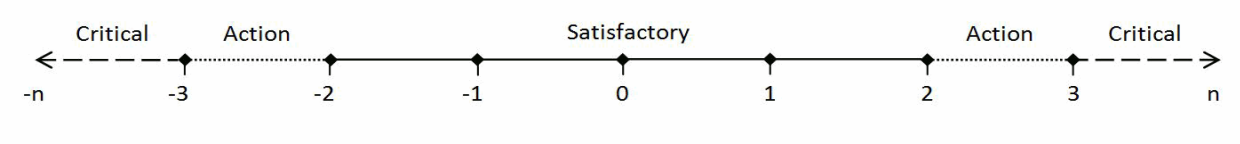
Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

Antigen	z Score*	Performance Status for this Sample	Performance Status Classification Over 6 Sample Period		
			Satisfactory	Action	Critical
CD2		Action	0	2	1
CD3		Action	1	2	0
CD5		Action	1	2	0
CD13		Action	1	2	0
CD19		Action	1	2	0
CD20		Action	1	2	0
CD10		Action			
CD22		Action			
CD23		Action			
CD79b		Action			
FMC7		Action			
CD25		Action			
CD43		Action			
CD200		Action			
Kappa		Action			
CD11c		Action			
CD45		Action			
HLADR		Action			
CD38		Action			

***z Score Limits Definitions**

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.



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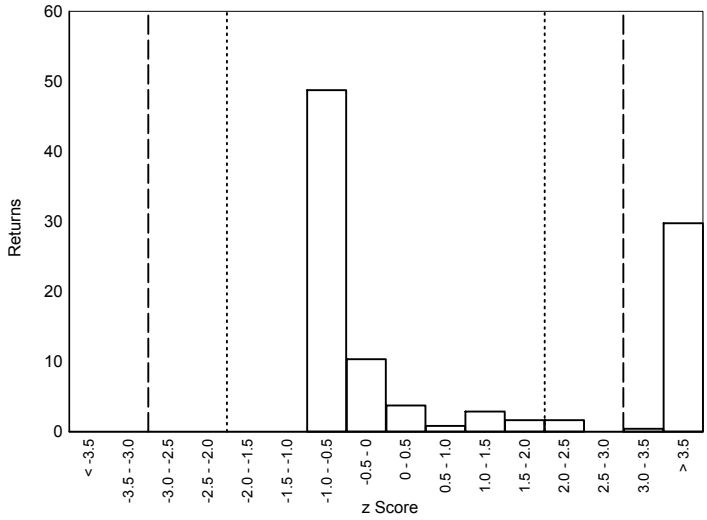
Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

Histograms of Participant z Scores

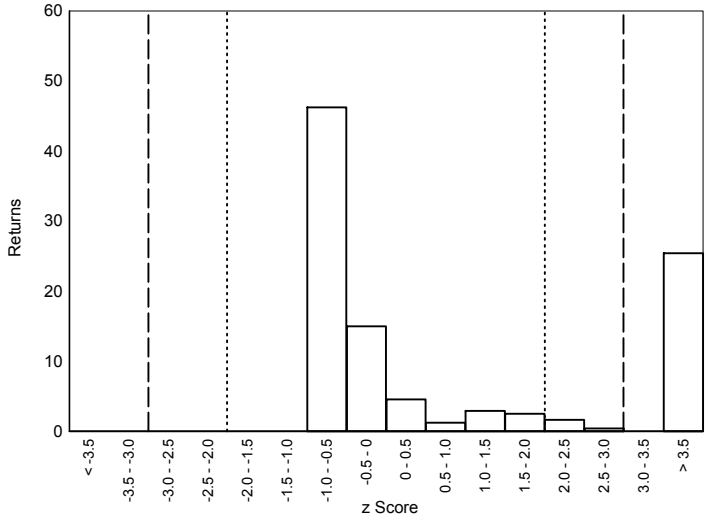
Percentage Values (%) - CD3

Please note ▼ denotes your result



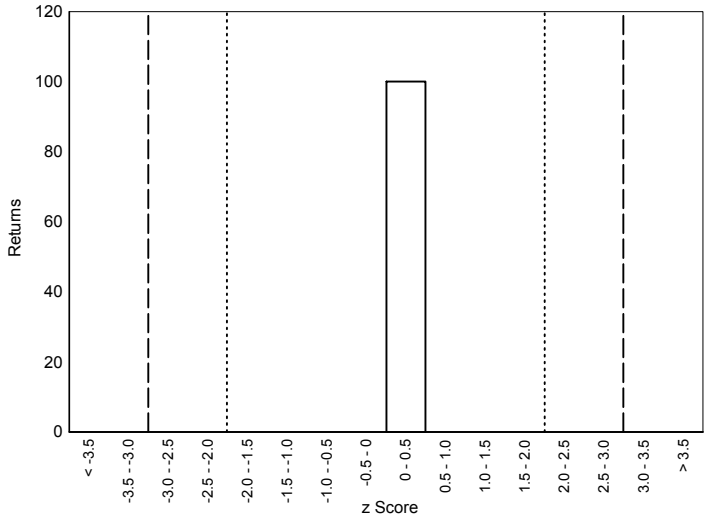
Percentage Values (%) - CD2

Please note ▼ denotes your result



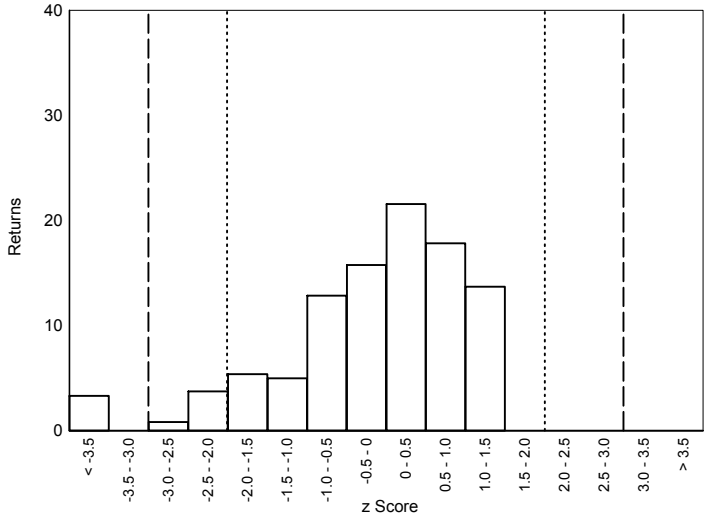
Percentage Values (%) - CD13

Please note ▼ denotes your result



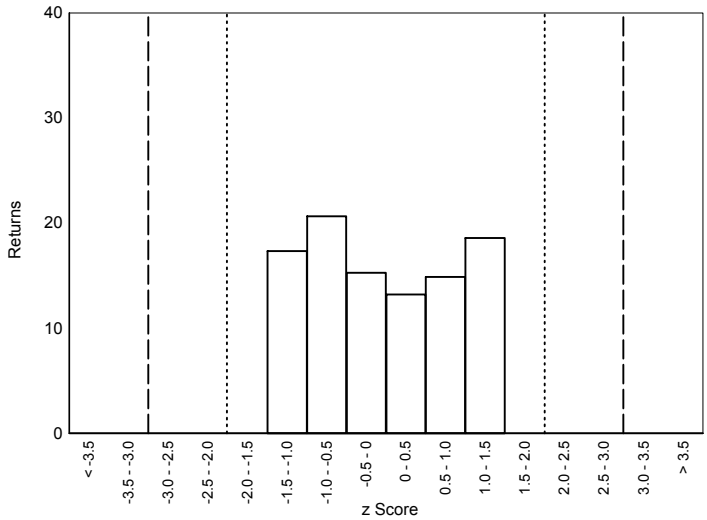
Percentage Values (%) - CD5

Please note ▼ denotes your result



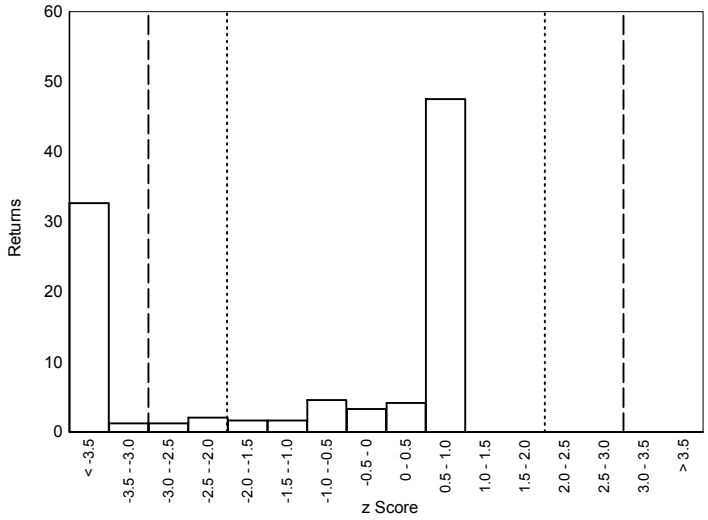
Percentage Values (%) - CD20

Please note ▼ denotes your result



Percentage Values (%) - CD19

Please note ▼ denotes your result



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Leukaemia Immunophenotyping (Part 1) Programme

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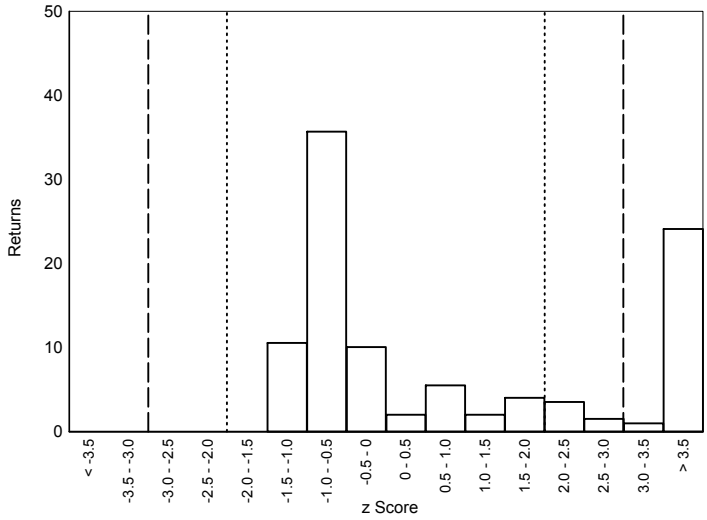
Histograms of Participant z Scores

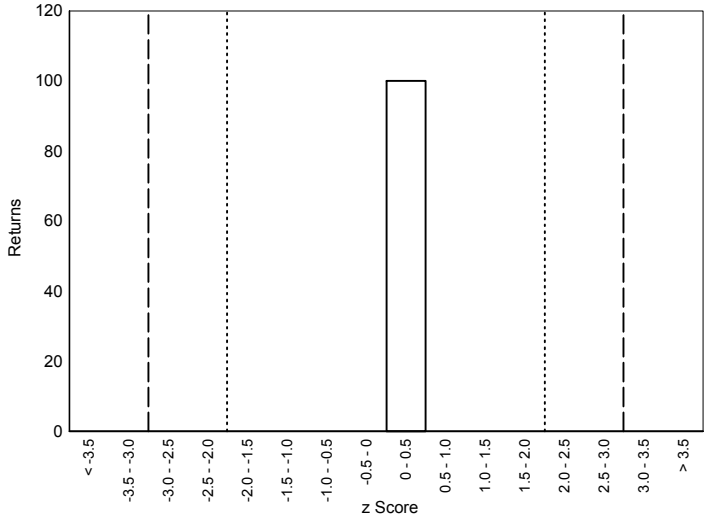
Percentage Values (%) - CD22

Please note ▼ denotes your result



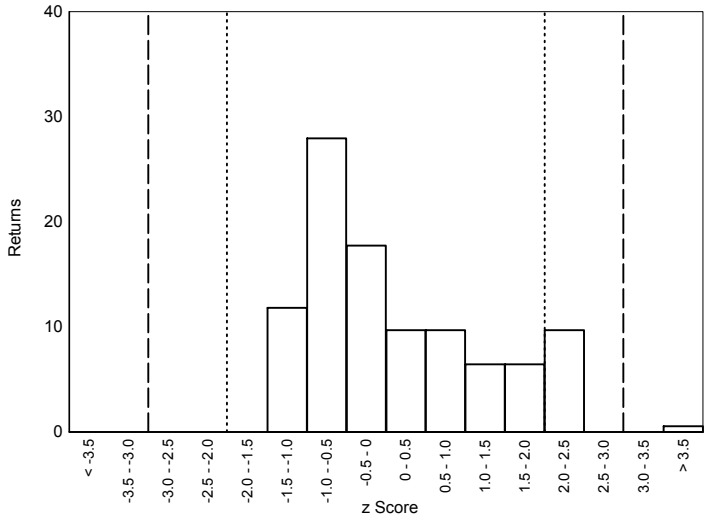
Percentage Values (%) - CD10

Please note ▼ denotes your result



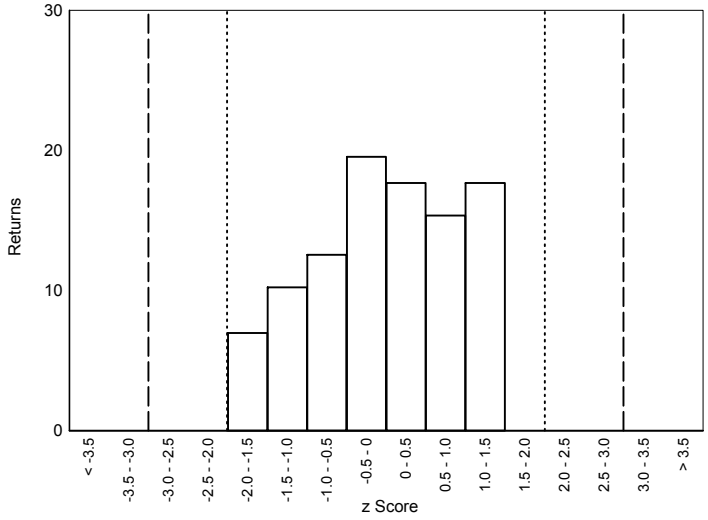
Percentage Values (%) - CD79b

Please note ▼ denotes your result



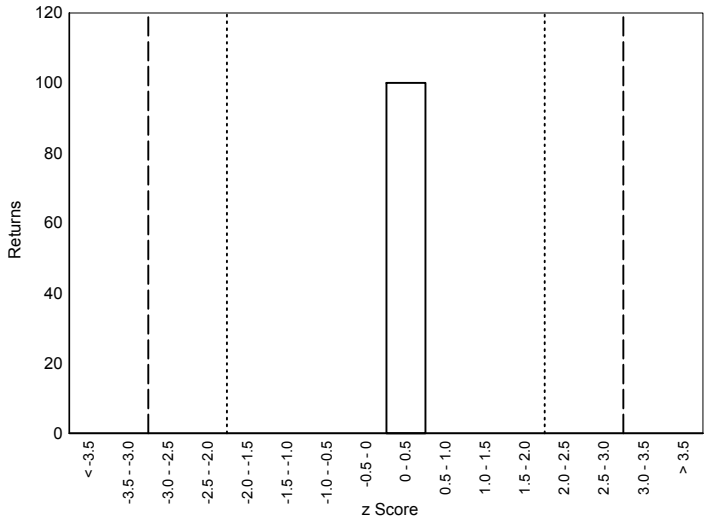
Percentage Values (%) - CD23

Please note ▼ denotes your result



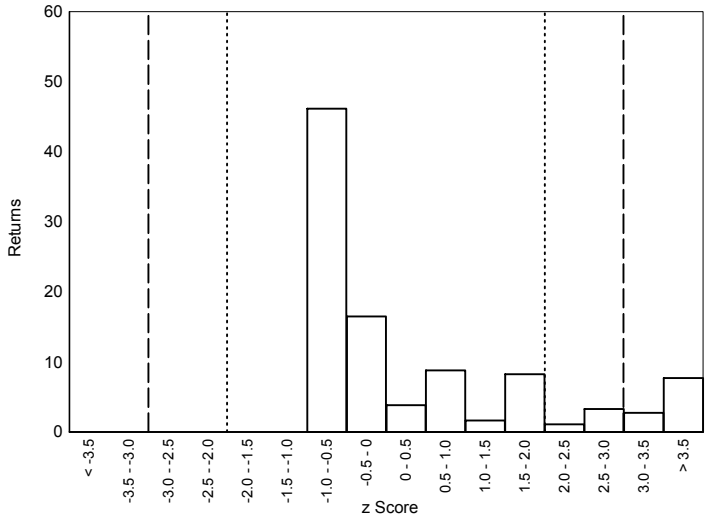
Percentage Values (%) - CD25

Please note ▼ denotes your result



Percentage Values (%) - FMC7

Please note ▼ denotes your result



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Leukaemia Immunophenotyping (Part 1) Programme

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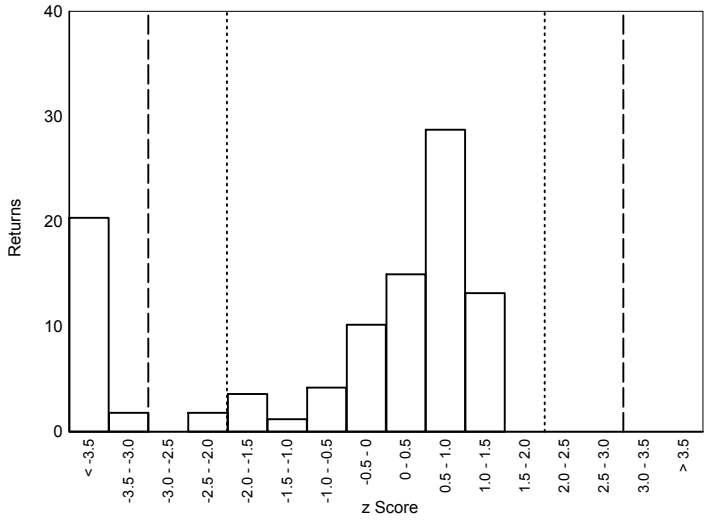
Histograms of Participant z Scores

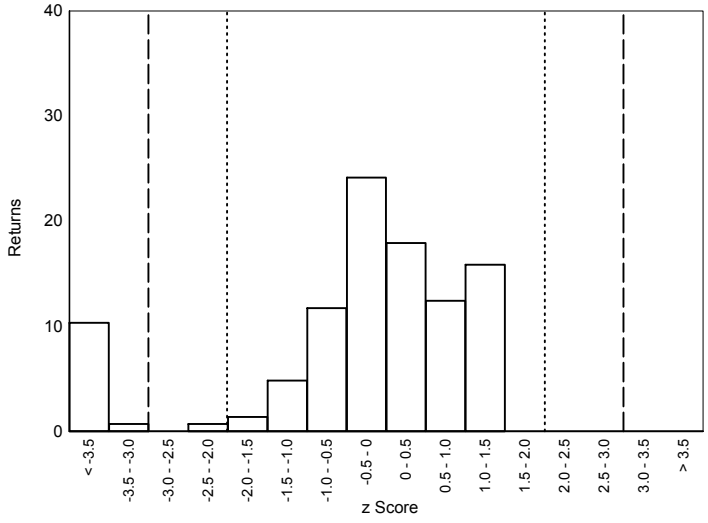
Percentage Values (%) - CD200

Please note ▼ denotes your result



Percentage Values (%) - CD43

Please note ▼ denotes your result



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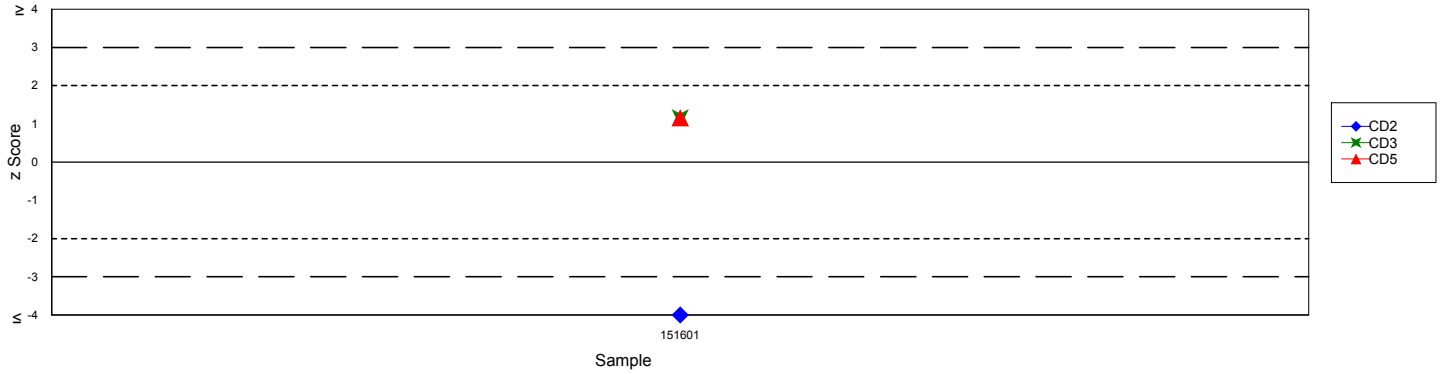
Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

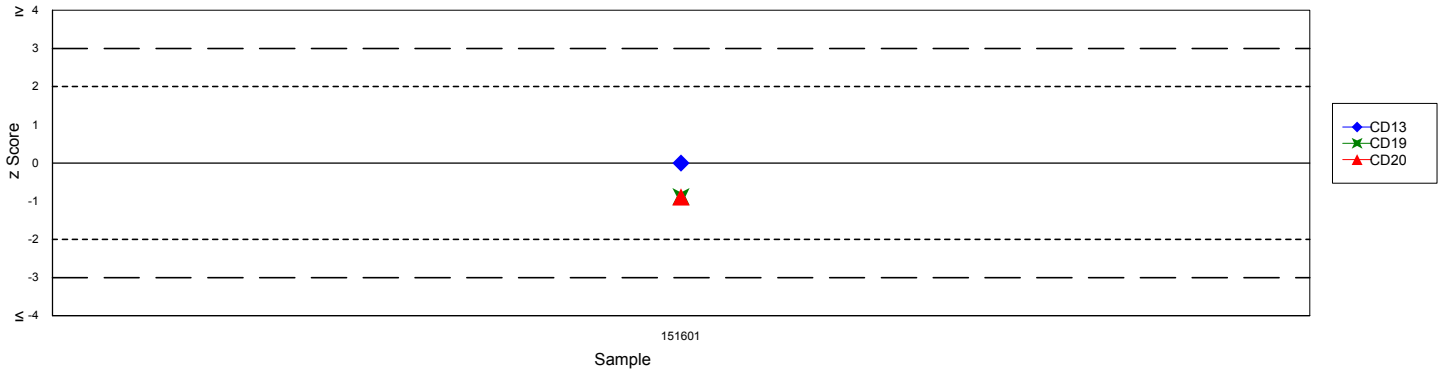
Shewhart Control Charts

(Please note each data point represents a single sample)

Percentage Values (%)



Percentage Values (%)



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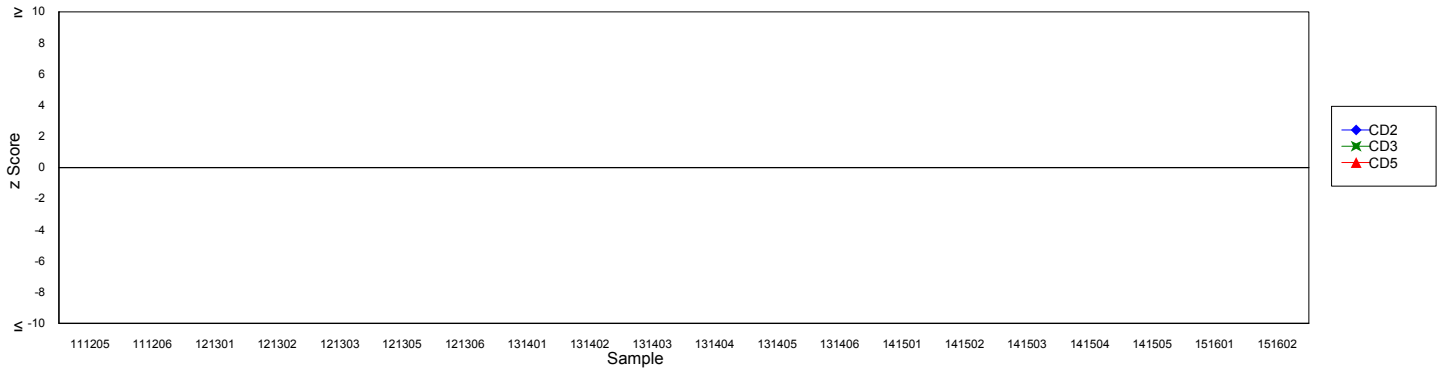
Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

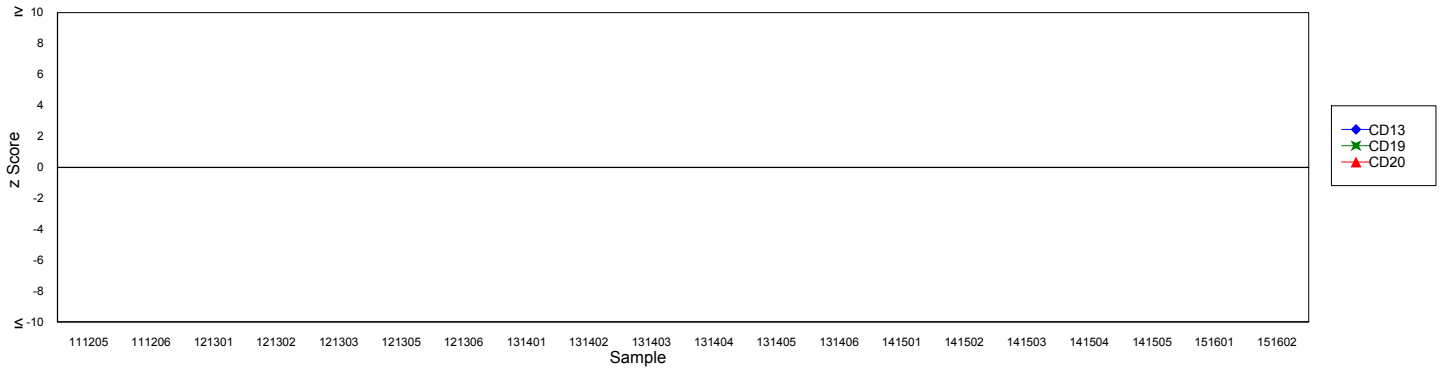
Cusum Control Charts

(Please note each data point represents the sum of the z scores of the current sample and the two previous samples)

Percentage Values (%)



Percentage Values (%)



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Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

Antibody Manufacturer Specific Statistics

(Please note only groups of >20 returns are displayed)

CD2	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	138	1.4	1.7
Beckman Coulter	77	1.4	1.6

CD3	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	139	0.5	0.5
Beckman Coulter	82	1.5	1.7

CD5	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	142	86.3	10.0
Beckman Coulter	77	88.9	7.5

CD10	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	116	0.0	0.0
Beckman Coulter	88	0.0	0.0

CD13	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	138	0.0	0.0
Beckman Coulter	74	0.0	0.0

CD19	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	112	94.0	6.6
Beckman Coulter	106	98.5	1.8

CD22	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	120	16.5	15.4
Beckman Coulter	56	8.4	6.9

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Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

Antibody Manufacturer Specific Statistics

(Please note only groups of >20 returns are displayed)

CD23	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	104	51.0	28.5
Beckman Coulter	55	67.3	24.9
Dako	36	48.1	36.8

CD79b	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	110	21.8	21.9
Beckman Coulter	47	59.5	37.5

FMC7	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	91	0.7	0.8
Beckman Coulter	54	2.0	2.0
Dako	20	0.1	0.2

CD25	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	121	0.0	0.0
Beckman Coulter	56	0.0	0.0

CD45	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	21	100.0	0.0

CD20	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	137	48.8	39.1
Beckman Coulter	77	36.2	34.6

CD38	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	27	7.9	6.9

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Manufacturer Specific Statistics

(Please note only groups of >20 returns are displayed)

CD43	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	72	95.3	4.6
Beckman Coulter	41	94.6	3.1

CD200	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
BD Biosciences	85	91.4	8.7
Beckman Coulter	20	87.5	11.3
eBioscience	32	97.6	2.2

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

CD2	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	27	0.0	0.0
FITC	96	1.5	1.6
PE	49	1.5	1.7
PE-CY7	46	0.2	0.2

CD3	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	43	1.6	1.8
FITC	47	1.5	1.7

CD5	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	37	88.4	6.7
FITC	58	84.2	10.6
PE	32	88.8	7.5
PE-CY7	30	89.2	5.3
PerCP-CY5.5	32	85.8	12.0

CD10	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	38	0.0	0.0
FITC	23	0.0	0.0
PE	108	0.0	0.0
PE-CY7	38	0.0	0.0

CD13	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
PE	155	0.0	0.0
PE-CY7	22	0.0	0.0

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Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

CD19	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	35	92.6	8.3
ECD	22	80.6	21.0
PE	32	72.3	27.0
PE-CY7	80	100.0	0.0

CD22	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	50	18.2	15.7
FITC	36	3.4	2.5
PE	74	39.8	37.3

CD23	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	35	58.6	29.4
FITC	42	36.1	29.5
PE	117	58.3	30.7

CD79b	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	43	38.4	32.6
FITC	36	7.1	6.5
PE	72	46.8	38.4
PerCP-CY5.5	20	10.5	11.1

FMC7	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
FITC	155	1.1	1.3

CD25	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	23	0.2	0.2
FITC	29	0.0	0.0
PE	84	0.0	0.0
PE-CY7	26	0.0	0.0

Leukaemia Immunophenotyping (Part 1) Programme

Sample - 151602

Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

CD20	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	28	48.9	40.7
FITC	46	35.5	33.5
Pacific Orange	20	41.9	42.6
PC5.5	26	29.6	28.2
PE	33	48.2	32.0

CD43	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
Alexa 750	27	98.5	1.7
FITC	73	94.6	3.3

CD200	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	56	97.0	2.9
PE	76	91.3	7.8

Sheffield Teaching Hospitals NHS Foundation Trust, a UKAS proficiency testing provider No. 7804, operating UK NEQAS for Leucocyte Immunophenotyping.

Information with respect to compliance with standards BS EN ISO/IEC 17043:2010

4.8.2 a) The proficiency testing provider for this programme is:
UK NEQAS for Leucocyte Immunophenotyping
Pegasus House, 4th Floor Suite
463A Glossop Road
Sheffield, S10 2QD
United Kingdom
Tel: +44 (0) 114 267 3600, Fax: +44 (0) 114 267 3601
e-mail: nicola.rose@ukneqasli.co.uk

4.8.2 b) The coordinators of UK NEQAS LI programmes are Prof David Barnett and Mr Liam Whitby.

4.8.2 c) Person(s) authorizing this report:
Prof David Barnett, Director or Mr Liam Whitby, Operations Manager of UK NEQAS LI

4.8.2 d) No activities in relation to this EQA exercise were subcontracted.

4.8.2 g) The UK NEQAS LI Confidentiality Policy can be found in the Quality Manual which is available by contacting the UK NEQAS LI office. Participant details, their results and their performance data remain confidential unless revealed to the relevant NQAAP when a UK participant is identified as having performance issues.

4.8.2 i) All EQA samples are prepared in accordance with strict Standard Operational Procedures by trained personnel proven to ensure homogeneity and stability. Where appropriate/possible EQA samples are tested prior to issue. Where the sample(s) issued is stabilised blood or platelets, pre and post stability testing will have proved sample suitability prior to issue.

4.8.2 l), n), o), r) & s) Please refer to the UK NEQAS LI website at www.ukneqasli.co.uk for detailed information on each programme including the scoring systems applied to assess performance. Where a scoring system refers to the 'consensus result' this means the result reported by the majority of participants for that trial issue. Advice on the interpretation of statistical analyses and the criteria on which performance is measured is also given. Please note that where different methods/procedures are used by different groups of participants these may be displayed within your report, but the same scoring system is applied to all participants irrespective of method/procedure used.

4.8.2 m) We do not assign values against reference materials or calibrants.

4.8.2 q) Details of the programme designs as authorized by The Steering Committee and Specialist Advisory Group can be found on our website at www.ukneqasli.co.uk. The proposed trial issue schedule for each programme is also available.

4.8.2 t) If you would like to discuss the outcomes of this trial issue, please contact UK NEQAS LI using the contact details provided.